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10/597,741	09/26/2006	Daniel Deriaz	P30124	5632
7055	7590	07/10/2008	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			WOLFE, DEBRA M	
ART UNIT	PAPER NUMBER			
	3725			
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/597,741	<b>Applicant(s)</b> DERIAZ ET AL.
	<b>Examiner</b> DEBRA M. WOLFE	<b>Art Unit</b> 3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 22 January 2008.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 11-30 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/0626/06)  
 Paper No(s)/Mail Date 1/22/2008
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_



## FINAL REJECTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 11-18, 22 and 23-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al (US Patent # 2,991,672) in view of Krapfenbauer (US Patent # 4,307,592). In reference to claim 1, Meyer et al discloses a device for the manufacture of work pieces having defined profiling, the device comprising of an axially moveable work piece holder (12), at least one forming tool (1), a first drive (47-50) structured and arranged to rotate the work piece holder (12) about a longitudinal axis of a work piece (A) held in the work piece holder (12) (see col. 3 lines 58-64), a second drive (29-37), separate from the first drive (47-50), structured and arranged to rotate the at least one forming tool to act periodically on the work piece (A)(see col. 3 lines 42-52), and an electronic control (16) operably connected to the first drive (47-50) and the second drive (29-32), which control the rotational movement of the work piece holder (12) based upon the second drive, wherein the at least one forming tool comprises profiled rollers that are driven to continually rotate along a circular orbit that it oriented parallel or obliquely to the longitudinal axis of the work piece (A) (see col. 3 lines 12-16). Meyer et al discloses the invention substantially as claimed except for wherein the first drive intermittently rotates the work piece. However, Krapfenbauer teaches of providing a drive (24-31) for a work piece holder



(21) to intermittently rotate the work piece holder (21) in order to increase the machining accuracy when the tool is brought into contact with work piece [See col. 2 lines 50-55 & col.3 line 64-col. 4 line 46]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the rotational drive of Meyer et al with the intermittently rotational drive of Krapfenbauer in order to increase the machining accuracy of the tool on the work piece.

In reference to claim 12, Meyer et al discloses the circular orbit is adjustably oriented [See col. 3 lines 36-41].

In reference to claim 13, Meyer et al further discloses the device comprising of a headstock (56) supporting the work piece holder (12), as seen in figure 8 [It is noted that work piece holder 12 is supported by the headstock 56 through element 11].

In reference to claim 14, the headstock (56) is guided and moveable in parallel to the longitudinal axis and connected to the first drive by a coupling that is elastic in an axial direction [See col. 3 lines 70-72].

In reference to claim 15, the device of Meyer et al further comprises of a secondary headstock (11) that is guided and moveable parallel to the longitudinal axis, and in which the first drive is positioned [See col. 2 lines 62-65].

In reference to claim 16, Meyer et al further discloses a third drive (51-55) structured to axially advance the work piece holder (12) along the longitudinal axis, wherein the first, second and third drives are electronically coupled to one another (see col. 3 lines 65-72) [It is noted that all of the drives are electronically coupled to one another through the motor and gearings].



In reference to claim 17, the first, second and third drives are connected with the electronic control (16) through gearing, as seen in figure 8.

In reference to claim 18, the work piece (A) of Meyer et al is a cylindrical hollow body, as seen in figure 8.

In reference to claim 23, Meyer et al discloses a method of manufacturing work pieces having defined profiles, comprising of rotating an axially moveable work piece holder (12) about a longitudinal axis of a work piece (A) held in the work piece holder (12), periodically acting on the work piece (A) with at least one forming tool (1) and controlling, with an electronic control (16 and gearing), a first drive (47-50) that causes the rotation (see col. 3 lines 58-64) and a second drive (29-37) that causes the movement of the forming tool (1) (see col. 3 lines 42-52), wherein the forming tool (1) comprises profiled rollers that are driven to continually rotate along a circular orbit that is oriented parallel or obliquely to the longitudinal axis of the work piece (A) (see col. 3 lines 12-16). Meyer et al discloses the invention substantially as claimed except for wherein the first drive intermittently rotates the work piece. However, Krapfenbauer teaches of providing a drive (24-31) for a work piece holder (21) to intermittently rotate the work piece holder (21) in order to increase the machining accuracy when the tool is brought into contact with work piece [See col.. 2 lines 50-55 & col.3 line 64-col. 4 line 46]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the rotational drive of Meyer et al with the intermittently rotational drive of Krapfenbauer in order to increase the machining accuracy of the tool on the work piece.

In reference to claim 24, the electronic control (16 and gearing) control the first drive based upon the movement of the forming tools [See col. 5 lines 26-32].



In reference to claim 25, the rotating, acting on and controlling generate a predetermined defined profiling geometry on the work piece (A), as seen in figures 1-7.

In reference to claim 26, the combination of Meyer and Krapfenbauer discloses the electronic control causes left hand rotation, right hand rotation or standstill of the work piece.

In reference to claim 27, the electronic control (16 and gearings) controls the second drive (29-37) and advancement of the forming tools (1) according to preselected settings [It is noted that the Examiner is interpreting the gear teeth of the gearing to be a preselected setting].

In reference to claim 28, the electronic control (16 and gearings) controls the axial advancement of the work piece [See col. 5 lines 26-32].

In reference to claim 29, the work piece is cylindrical and the rotating, acting on and controlling generate helical toothings on the work piece (A), as seen in figure 7.

In reference to claim 30, Meyer et al discloses a device for the manufacture of work pieces having defined profiling, the device comprising of an axially moveable work piece holder (12), at least one forming tool (1), a first drive (47-50) structured and arranged to rotate the work piece holder (12) about a longitudinal axis of a work piece (A) held in the work piece holder (12) (see col. 3 lines 58-64), a second drive (29-37), separate from the first drive (47-50), structured and arranged to rotate the at least one forming tool to act periodically on the work piece (A)(see col. 3 lines 42-52), a third drive (51-55) structured to axially advance the work piece holder (12) along the longitudinal axis, wherein the first, second and third drives are electronically coupled to one another (see col. 3 lines 65-72) [It is noted that all of the drives are electronically coupled to one another through the motor and gearings]. Meyer et al discloses the invention substantially as claimed except for wherein the first drive intermittently rotates the work piece. However,



Krapfenbauer teaches of providing a drive (24-31) for a work piece holder (21) to intermittently rotate the work piece holder (21) in order to increase the machining accuracy when the tool is brought into contact with work piece [See col.. 2 lines 50-55 & col.3 line 64-col. 4 line 46]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the rotational drive of Meyer et al with the intermittently rotational drive of Krapfenbauer in order to increase the machining accuracy of the tool on the work piece.

2. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al in view of Krapfenbauer as applied to claim 11 above, and further in view of Schuler et al (US Patent # 5,001,916). Meyer et al in view of Krapfenbauer discloses the invention substantially as claimed except for wherein the work piece is mounted on a longitudinally profiled cylindrical mandrel. However, Schuler et al teaches that it is known in the art to mount a hollow cylindrical work piece on a profiled mandrel in order to form internal toothings [See col. 7 line 22-44]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the work piece holder of Meyer et al with the profiled cylindrical mandrel of Schuler et al in order to produce a cylindrical work piece with internal toothings.

#### *Response to Arguments*

Applicant's arguments with respect to new claims 11-30 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Debra Wolfe whose telephone number is (571) 272-1904. The examiner can normally be reached Monday - Thursday 7am - 4:30pm with alternating Friday 7am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached at (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Examiner, Art Unit 3725

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Supervisory Patent Examiner, Art Unit 3725